

Ethics in Artificial Intelligence (Module 2)

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1 Data protection

Remark (AI risks).

- Eliminate or devalue jobs.
- Lead to poverty and social exclusion, if no measures are taken.
- Concentrate economic wealth in a few big companies.
- Allow for illegal activities.
- Surveillance, pervasive data collection, and manipulation.

Example. Many platforms operate in a two-sided market where users are on one side and advertisers, the real source of income, are on the other.

- Public polarization and interference with democratic processes.
- Unfairness, discrimination, and inequality.
- Loss of creativity.

Remark. Creativity can be:

Combinatorial Combination of existing creativity.

Exploratorial Explore new solutions in a given search space.

1.1 Profiling

Profiling System that predicts the probability that an individual having a feature F_1 also has a feature F_2 . Profiling

In the GDPR, it is defined as any form of processing of personal data of a natural person (the data subject) that produces legal effects (e.g., signing a contract) or significantly affects it. It includes analyses and predictions related to work, economic situation, health, interests, reliability, movements.

Remark. Profiling in the GDPR only refers to natural persons (i.e., individuals and not groups).

Example (Cambridge Analytica scandal). Case where data of US voters was used to identify undecided voters:

1. US voters were invited to take a personality/political test that was supposed to be for academic research. Participants were also required to provide access to their Facebook page in order to get a money reward for the survey.
2. Cambridge Analytica collected the participants' data on Facebook, but also accessed data of their friends.
3. The data of the participants was used to build a training set where Facebook content

is used as features and questionnaire answers as the target. The model built upon this data was then used for predicting the profile of their friends.

4. The final model was used to identify voters that were more likely to change their voting behavior if targeted with personalized ads.

Industrial capitalism Economic system where entities that are not originally meant for the market are also considered as products. This includes labor, real estate, and money.

Industrial capitalism

Surveillance capitalism Considers human experience and behavior also as a marketable entity.

Surveillance capitalism

Remark. Labor, real estate, and money are mostly subject to law. However, exploitation of human experience is less regulated.

Surveillance state System where the government uses surveillance, data collection, and analysis to identify problems, govern population, and deliver social services.

Surveillance state

Example (Chinese social credit system). System that collects data and assigns a score to citizens. The overall score governs the access to services and social opportunities.

Remark. Profiling enables for differential inference where individuals are treated differently based on their features.